ABSTRACT OF THE DISCLOSURE

A micro-electromechanical system (MEMS) device having a pair of spaced apart top and bottom substrates or cover plates having mutually opposing inner surfaces structured to cooperate with a micro-machined electromechanical device mechanism, such as a micro-machined sensor or actuator mechanism. Such a micro-machined electromechanical device mechanism is coupled to the inner surface of one of the top and bottom substrates. A metal chip bond pad is formed on the inner surface of the bottom substrate and is electrically coupled to an electrical path; another metal chip bond pad formed on the inner surface of the top substrate in a complementary position opposite the chip bond pad on the bottom substrate; and an electrically conductive gold stud bump is mechanically and electrically coupled between the metal chip bond pads on the top and bottom substrates.